

SGD-12-71-P1

1123 Warning:- Please write your Roll No. in the space provided and sign. Roll No-----  
( Inter Part – I) (Session 2019-21 to 2022-24) Sig. of Student -----

Biology (Objective)

Group 1

Paper (I)

PAPER CODE 2463

Maximum Marks:- 17

Time Allowed:- 20 minutes

Note:- You have four choices for each objective type question as A, B, C and D. The choice which you think is correct; fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Write PAPER CODE, which is printed on this question paper, on the both sides of the Answer Sheet and fill bubbles accordingly, otherwise the student will be responsible for the situation. Use of Ink Remover or white correcting fluid is not allowed.

Q. 1

- 1) Bacteria divide at exponential rate during the phase:  
(A) Decline (B) Stationary (C) Log (D) Lag
- 2) Cenozoic is the era of:-  
(A) Fishes (B) Amphibians (C) Reptiles (D) Mammals
- 3) In animals fatty acids are:  
(A) Branched Chain (B) Straight Chain (C) Ringed Chain (D) Ringed and branched Chain
- 4) Which one is essential material for co-enzyme:  
(A) Vitamins (B) Lipids (C) Proteins (D) Carbohydrates
- 5) Omnis cellula-e-cellula was hypothesized by:  
(A) Weismann (B) Oken (C) Virchow (D) Lamarck
- 6) About 60% of Adults are immune to disease:  
(A) Measles (B) Mumps (C) Influenza (D) Polio
- 7) Algae which take part in building coral reefs along with coral animals are:  
(A) Green algae (B) Brown algae (C) Red algae (D) Blue green algae
- 8) The protective membrane of human heart is:  
(A) Epicardium (B) Endocardium (C) Myocardium (D) Pericardium
- 9) Citric acid is obtained from the species of:  
(A) Penicillium (B) Aspergillus (C) Saccharomyces (D) Neurospora
- 10) The ovule of the angiosperm can be called:  
(A) An integumented megasporangium (B) Megasporangium (C) Microsporangium (D) Mega gametangium
- 11) The larva of echinoderms is called:  
(A) Planaria (B) Bipinnaria (C) Valiger (D) Trochophore
- 12) Mammals had evolved from reptilian ancestor:  
(A) Brontosaurus (B) Ichthyosaurus (C) Cotylosaurs (D) Varanope
- 13) During photorespiration glycine is converted into serine in organelle  
(A) Peroxisome (B) Ribosomes (C) Chloroplast (D) Mitochondria
- 14) Chlorophyll do not reflect:  
(A) Green wavelength (B) Blue wavelength (C) Indigo wavelength (D) Yellow wavelength
- 15) During Kreb's cycle succinate is converted into:  
(A) Fumarate (B) Malate (C) Oxaloacetate (D) Citrate
- 16) The volume of blood in a body weight of 60 kgs is:  
(A) 8 litres (B) 7 litres (C) 6 litres (D) 5 litres
- 17) Sarracenia pupurea is a scientific name of:  
(A) Pitcher Plant (B) Venus fly trap (C) Sundew (D) Leguminous plant

1129 -- 1123 -- 11000 (2)

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Biology (Subjective) (Session 2019-21 to 2022-24) Paper (I)

Time Allowed: 2.40 hours (Inter Part - I) Group 1 Maximum Marks: 68  
SGID-11-671-P2 Section ----- I

2. Answer briefly any Eight parts from the followings:-  $8 \times 2 = 16$
- (i) Write down structural Formula of Butyric acid. (ii) What is the role of metal ions with enzymes?
  - (iii) How substrate concentration affect the rate of enzyme action?
  - (iv) Differentiate irreversible inhibitors from reversible inhibitors.
  - (v) Define mychorhiza along with its kinds.
  - (vi) How biologists classify fungi imperfecti now a days?
  - (vii) What is the difference between ostia and osculum? (viii) What is unique in the female of Eagle?
  - (ix) Which group is considered as first amniotic group give two characters of them?
  - (x) Write down two basic characters of chordates. (xi) Define chemiosmosis.
  - (xii) How Rubisco is regenerated?

3. Answer briefly any Eight parts from the followings:-  $8 \times 2 = 16$
- (i) Biological organization is not simple. Coment on it.
  - (ii) How essentiality of a certain nutrient for plant is checked in complex medium of soil.
  - (iii) How the material of cell is recycled and renewed by Lysosomes?
  - (iv) How magnification of microscope is determined?
  - (v) Kingdom Protista is called Kingdom of exclusion. Why?
  - (vi) How chalk is formed? (vii) Algae differ from plants. Why?
  - (viii) Green algae and plants form a monophyletic lineage. Coment it.
  - (ix) How bryophytes are precisely defined. (x) What are paraphyses?
  - (xi) Define apoplast pathway. Why it becomes discontinuous. (xii) What are hydathodes.

4. Answer briefly any Six parts from the followings:-  $6 \times 2 = 12$
- (i) What are obligate intracellular parasites? Give their example?
  - (ii) Differentiate b/w Trichome and filament? (iii) In what way fluid feeder feeds?
  - (iv) How prey and predator interaction is helpful in maintaining the ecosystem?
  - (v) How the crop differ from gizzard?
  - (vi) Suggest various disadvantages of water for ventilation?
  - (vii) Explain the process of exhalation and Inhalation?
  - (viii) In what way pleura and diaphragm protect the lungs?
  - (ix) What factors are involved in the transport of Respiratory Gases?

Section ----- II

Note: Attempt any three questions.

$(8 \times 3 = 24)$

- 5. (a) Define Phyletic Lineage, explain its importance.  
(b) Discuss various factors that affect the rate of Transpiration.
- 6. (a) Differentiate between DNA and RNA .  
(b) Give different modes of asexual reproduction in fungi.
- 7. (a) Explain the Nutrition in Bacteria.  
(b) Why bryophytes are called ' Amphibious plants'? Discuss their general characteristics.
- 8. (a) Write down biological classification of Corn?  
(b) Draw outline of Krebs cycle.
- 9. (a) Describe at least four main differences between Prokaryotic cell & Eukaryotic cell.  
(b) Describe parasitic & symbiotic nutrition in plants.

1130 -- 1123 -- 11000

SGD-11-672-P1

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( Inter Part – I) (Session 2019-21 to 2022-24) Sig. of Student -----

Biology (Objective)

(Group II)

Paper (I)

Time Allowed:- 20 minutes

**PAPER CODE 2468**

Maximum Marks:- 17

Note:- You have four choices for each objective type question as A, B, C and D. The choice which you think is correct; fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Write **PAPER CODE**, which is printed on this question paper, on the both sides of the Answer Sheet and fill bubbles accordingly, otherwise the student will be responsible for the situation. Use of Ink Remover or white correcting fluid is not allowed.

Q. 1

- 1) An enzyme lowers down the energy of:  
(A) Potential (B) Kinetic (C) Ionic (D) Activation
- 2) Glyoxysomes are most abundant in:  
(A) Plant seedlings (B) Pea (C) Liver cells (D) Bacteria
- 3) The number of capsomers present in Adenovirus is:  
(A) 252 (B) 154 (C) 162 (D) 175
- 4) The study of distribution of animals in nature is called  
(A) Biogeography (B) Paleontology (C) Zoogeography (D) Biodiversity
- 5) Which of the following monosaccharide represent the reducing sugar?  
(A) Starch (B) Fructose (C) Lactose (D) Maltose
- 6) Most wide spread problem for the misuse of antibiotics is:  
(A) Disturbance of metabolism (B) Immunity (C) Increase resistance in pathogens (D) Allergic reaction
- 7) Which of the following does occur for the formation of Acetyl Co A from pyruvate?  
(A) Carboxylation (B) Hydrogenation (C) Decarboxylation (D) Deamination
- 8) Villi and microvilli are present in:  
(A) Large intestine (B) Esophagus (C) Ileum (D) Pharynx
- 9) Lungs are covered by doubled layered thin membranous Sacs called  
(A) Pericardium (B) Pleura (C) Peritoneum (D) Scrotum
- 10) Chordae tendinae are present in:  
(A) Only right atrium (B) Only left ventricle (C) Only right ventricle (D) Both ventricles
- 11) A hormone released by mesophyll cells at high temperature is called:  
(A) Acetic acid (B) Auxins (C) Ethene (D) Abscisic acid
- 12) An outer flexible covering in paramecium is called:  
(A) Pellicle (B) Cell wall (C) Cell membrane (D) Cristae
- 13) Griseofulvin is used to:  
(A) Lower blood cholesterol (B) Relieve migraine (C) Prevent Tissue rejection (D) Inhibit Fungal growth
- 14) The name Nicotiana Tobacum is given to:  
(A) Tobacco (B) Potato (C) Red pepper (D) Tomato
- 15) During development, ectoderm layer gives rise to:  
(A) Muscular system (B) Integumentary system (C) Digestive tract (D) Liver
- 16) Which of the following vertebrate is without Jaw?  
(A) Chondrichthyes (B) Trout (C) Hag fishes (D) Perch
- 17) Chlorophyll absorbs mainly wavelength  
(A) Violet-blue (B) Yellow (C) Green (D) Indigo

1129A -- 1123 -- 11000 (4)

SGD-11-672-P2

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Biology (Subjective) (Session 2019-21 to 2022-24) Paper (I)

Time Allowed: 2.40 hours (Inter Part - I) (Group II) Maximum Marks: 68

Section ----- I

2. Answer briefly any Eight parts from the followings:-  $8 \times 2 = 16$

- (i) Describe ionization of water. (ii) How inhibitors inhibit enzymes.
- (iii) Why only active site is used in catalysis? (iv) How pH change / alters rate of catalysis?
- (v) What is yeast? (vi) What are various types of spores found in fungi?
- (vii) What are porifers? (viii) Describe mantle?
- (ix) What type of fins are found in bony fishes? Write their function?
- (x) Define placenta? Write two characters of placental mammals.
- (xi) What do you mean by compensation point? (xii) Define anaerobic respiration.

3. Answer briefly any Eight parts from the followings:-  $8 \times 2 = 16$

- (i) Why is it difficult to define life? (ii) Name any four attributes of population.
- (iii) Why Fluid Mosaic Model of cell membrane is widely accepted?
- (iv) Describe Ribosomes structure of function. (v) Kingdom Protista is defined by exclusion why?
- (vi) Why ciliates differ from other protozoan? (vii) How algae differ from plants?
- (viii) Why is Plasmodial Slime mold considered as a model organism. (ix) What is paraphyses?
- (x) Write down the names of four genera of Gymnosperms. (xi) What is bleeding in plants?
- (xii) What is Cooley's Anaemia?

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4. Answer briefly any Six parts from the followings:-  $6 \times 2 = 12$

- (i) Define species. (ii) How cyst is different from spore?
- (iii) How does stomach wall is being prevent from digestion?
- (iv) Differentiate between peristalsis and Antiperistalsis.
- (v) Give name of cells of gastric gland with their secretions.
- (vi) What is photorespiration? Give its products. (vii) What is Asthma? Write down its causes.
- (viii) How does exhalation and inhalation occur in cockroach?
- (ix) In what way respiration in birds is the most efficient?

Section ----- II

Note: Attempt any three questions.  $(8 \times 3 = 24)$

5. (a) Discuss briefly phyletic lineage in biological organization.  
(b) Explain pressure flow theory proposed by Ernst Munch in 1930.
6. (a) What do you know about the structure of Nucleic Acids?  
(b) Write a comprehensive note on the sexual reproduction in Fungi.
7. (a) Discuss growth and reproduction in Bacteria.  
(b) Describe life cycle of an angiospermic plant.
8. (a) Describe the infection cycle of HIV?  
(b) What are photosynthetic pigments? Discuss their role in the photosynthesis?
9. (a) Discuss Fluid Mosaic Model of Plasma Membrane. (b) Explain Digestion in Cockroach.

1130A -- 1123 -- 11000